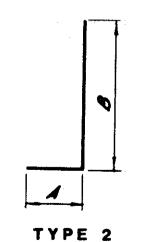
47

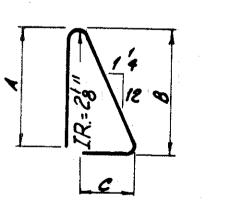
LAKE COUNTY

REINFORCEMENT SCHEDULE

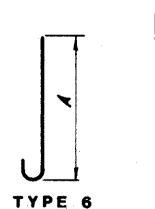
MARK	NUMBER	LENGTH	TYPE	SER. INCR.	WEIGHT (LBS)	A	В	С	D
RW501	28	30'-0"	STR.		876				
RW502	36	10'-0"	STR.		375				
RW503	88	3'8"	STR.		337	,			· · · · · · · · · · · · · · · · · · ·
RW504	†	5'1"	STR.		530		· · · · · · · · · · · · · · · · · · ·		
RW505	♦	27'-8"	STR.		1443				
RW506		31'8"	STR.		462				
RW507		10:3"	STR.		941				
RW508		4-4"	STR.		72		1		
RW509	 	25'-10"	STR.		108				
RW510	4	29:10"	STR.		124	·			
RW511	14	4:7"	STR.		67				
RW512	14	2'8"	6		39	211		, , , , , , , , , , , , , , , , , , ,	
RW513	76	<i>5'3"</i>	5		4/6	2:2"	215"	72"	
RW514	20	13:7"	STR.		283				
RW515	4	11:9"	STR.		49				
RW516	4	15:7"	STR.		65				
RW517	4	13'-9"	STR.		5 7				
RW601	76	3!9"	9		428	9"	6"	2:5"	82"
RW602	2 SER. 4	3.8" 3.7	9	5 N	44	8" 7"	5" 2"	2:5"	82" 82"
RW603	6	3: 7"	9		32	7*	2"	2:5"	82"
RW 701	88	5'3"	2		944	1:2"	4!3"		A
RW 702	88	9:5"	STR.	· · · · · · · · · · · · · · · · · · ·	1694		· · · · · · · · · · · · · · · · · · ·		
•									
		TOTAL WE	IGUT		9,386				" j .
TOTAL WEIGHT					3,000				

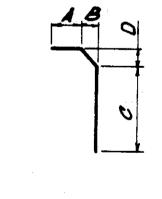
BAR BENDING DIAGRAMS





TYPE 5





TYPE 9

WOODRUFF, INC.

CONSULTING ENGINEERS

CLEVELAND, OHIO

NOTES, QUANTITIES AND
REINFORCEMEN SCHEDULE FOR
RETAINING WALL AT STATION 15+00
U.S. ROUTE 20 OVER

THE GRAND RIVER

IKE C	OUNTY	000				
IRS	TRACEDRIX	CHECKEDURS	R'S REVIEWED	REVISED		
3-1585	DATE 5-1685	DATE 5-8	DATE:	SHEET	2/2	
		· · · · · · · · · · · · · · · · · · ·	······································	· · · · · · · · · · · · · · · · · · ·		

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

GR-1 DATED 1-11-85

GR-3 DATED 1-21-85

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983, AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN STRESSES

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4500 P.S.I.

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I.

REINFORCING STEEL - ASTM A615, A616, A617 - GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

FOUNDATION BEARING PRESSURE: RETAINING WALL FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 0.78 TONS PER SQ. FT.

IF CINDER FILL IS ENCOUNTERED AT THE BOTTOM OF FOOTING ELEVATIONS SHOWN ON THE PLANS, THE UNSUITABLE MATERIAL SHALL BE UNDERCUT TO NATURAL GROUND AND REPLACED WITH ITEM 310, SUBBASE, AS DIRECTED BY THE ENGINEER

TEXTURED FINISH OF CONCRETE: THE FRONT FACES OF THE RETAINING WALL SHALL HAVE A TEXTURED FINISH AS PRODUCED BY STRIATED FORMS. THE TEXTURED FINISH SHALL BE UNIFORM AND SHALL EXTEND LONGITUDINALLY FOR THE FULL LENGTH OF THE RETAINING WALL AND VERTICALLY FROM THE TOP OF FOOTING UP TO THE LOWER CONSTRUCTION JOINT SEPARATING THE PARAPET CURB WITH THE WALL. FOUR-FOOT BY FOUR FOOT FORM PANELS SHALL BE USED WHERE POSSIBLE. THE PANELS SHALL BE PLACED WITH THE STRIATIONS OF THE FORMS ALTERNATING HORIZONTALLY AND VERTICALLY BETWEEN RUSTICATIONS WHICH ARE LOCATED AND DETAILED ON THE PLANS.

CONCRETE INSERT ANCHOR ASSEMBLY, AS SHOWN ON STD. DWGS. GR-1 AND GR-3, SHALL BE PROVIDED FOR THE ATTACHMENT OF GUARD RAIL TERMINAL CONNECTORS. (INCLUDED WITH RETAINING WALL CONCRETE FOR PAYMENT).

PREFORMED EXPANSION JOINT FILLER IN THE PARAPET EXPANSION JOINTS MAY BE EITHER KINGRAY SPONGE RUBBER OR KINGRAY CELLULAR POLYVINYL CHLORIDE (PVC) SPONGE. IF RUBBER IS USED IT SHALL MEET THE REQUIREMENTS OF AASHTO M-153. (INCLUDE WITH PARAPET CONCRETE FOR PAYMENT).

CONCRETE PARAPETS ABOVE UPPER CONSTRUCTION JOINT SHALL BE PLACED IN ALTERNATE SECTIONS BY THE USE OF BULKHEADS. CLOSING SECTIONS SHALL BE PLACED AFTER REMOVAL OF BULKHEADS AND AFTER PLACEMENT OF EXPANSION JOINT FILLER. EXPOSED EDGES OF THE FILLER SHALL BE FLUSH WITH THE SURFACE OF CONCRETE AND SHALL BE FREE OF MORTAR.

ESTIMATED QUANTITIES						
ITEM	TOTAL UNIT DESCRIPTION		WALL			
310	50.	Cu. Yds.	Subbase, Type I	50		
503	267	Cù. Yds.	Unclassified Excavation	267		
503	Lump Sum	Lump	Cofferdams, Cribs and Sheeting	Lump		
509	9, 386	Lbs.	Reinforcing Steel Grade 60	9,386	3	
5/1	73	Cu. Yds.	Class "C" Concrete, Footing and Keys	7.3		
5/1	75	Cu. Yds.	Closs "C" Concrete, Wall and Parapet	75	-11	
512	10	Sq. Yos.	Type "B" Waterproofing	10		
516	34	Sq. F.t.	1" Preformed Expasion Joint Filler	34		
518	3 3	Cu. Yds	Porous Backfill	33		
		:			·	

OUANTITY CALCULATIONS

BY JRS DATE 5-85

CHKD. AJM DATE 5-85

WOODRUFF, INC.